STATE OF TENNESSEE
COMPTROLLER OF THE TREASURY
OFFICE OF RESEARCH
505 Deaderick Street, Suite 1700
Nashville, Tennessee 37243-0268
Phone 615/401-7911
Fax 615/532-9237

May 1, 2008

Memorandum

To: Honorable John Morgan, Comptroller of the Treasury

Honorable David Goetz, Commissioner of Finance and Administration

Honorable Dale Sims, Treasurer

Honorable Riley Darnell, Secretary of State

From: Kevin Krushenski, Principal Legislative Research Analyst

Keith Boring, Associate Legislative Research Analyst

Date: 5/1/2008

Re: Economic Report to the Governor

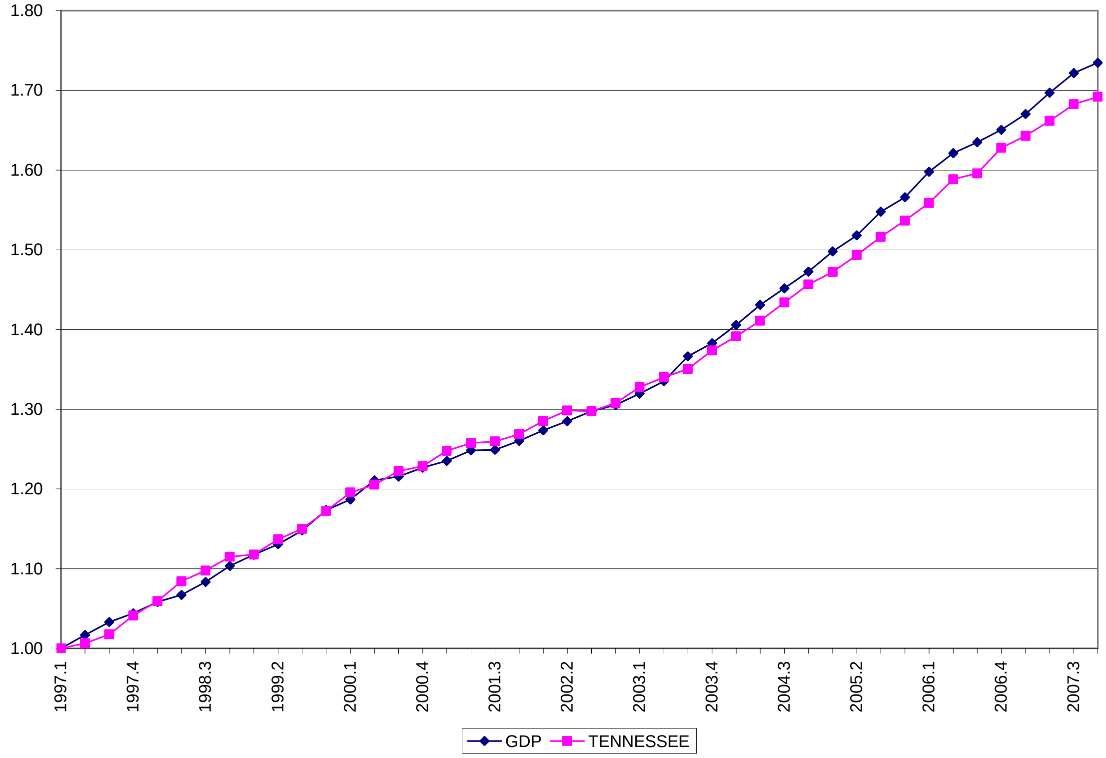
As required by TCA §9-4-5202, the State Funding Board (the Board) shall secure estimates of economic growth from the Tennessee econometric model published by The University of Tennessee's Center for Business and Economic Research (CBER) in its annual Economic Report to the Governor. The Report provides an overview of the current estimates of economic growth statistics, such as nominal personal income growth and employment growth. TCA §9-4-5202 also prescribes the Board to comment on the "reasonableness" of CBER's estimate of nominal personal income growth in Tennessee. The Comptroller's Office of Research assists the Board by evaluating current economic conditions and trends via outside forecasts.

Overall Conclusion: Based upon a review of various economic forecasts, other trends in the world economy, and historical Tennessee growth, CBER's projection of 4.56 percent nominal personal income growth for 2008 does not appear unreasonable.

Forecast Comparisons

Historically, growth in Tennessee personal income has closely followed growth in United States gross domestic product (GDP). Exhibit 1 shows the relationship between relative growth in Tennessee personal income as it compares to the relative growth in U.S. GDP over the past decade.

Exhibit 1: Relative Growth of Selected Economic Indicators



Source: United States Bureau of Economic Analysis, www.bea.gov, accessed 4/16/08

Because the relationship between the indicators is close and few other agencies produce estimates of growth in Tennessee Personal Income, for the purposes of this commentary we will compare the GDP estimates produced by CBER with the GDP estimates produced by other economic forecasting agencies.

Last year, the U.S. economy entered a more moderate real GDP growth pattern when compared to prior years. Growth in 2007 of 2.2 percent was the product of a dismal start and end to the calendar year. Many sectors of the national economy felt the sting of the economic slowdown, most notably the residential housing construction and financial institutions industries, as well as private inventory investment.[1] The actual GDP growth rate was below last year's CBER projection of 2.8 percent. CBER's projections were in line with all other forecasting agencies last year. Projections by leading forecasting agencies for this year vary slightly, but reflect the belief of a continued economic slowdown throughout 2008. As Exhibit 2 shows, on average, economists forecast 1.3 percent real GDP growth for the U.S., which is significantly lower than CBER's forecast of 1.9 percent. It should be noted, however, that many of the comparison agencies forecasted stronger growth during a comparable time period to CBER's forecast, then revised projections downward in subsequent releases. These revised projections should not impact nominal personal income growth during this year due to concurrent upward inflation adjustments for the same period. However, many agencies hinted at the prospect of and some agencies officially predicted a recession for the current year.[2]

Exhibit 2: Forecast Comparison: 2008 Real GDP Growth

Agency	Rate	Forecast Date
Fannie Mae	1.4%	Mar-08
Wachovia	1.2%	Mar-08
Philadelphia FBR	1.8%	Feb-08
Northern Trust	0.8%	Mar-08
CBER	**1.9%**	**Jan-08**
Forecast Average	1.3%	

Source: Fannie Mae, Wachovia, Federal Reserve Bank of Philadelphia, and Northern Trust

Real residential investment, which has tapered off since the end of the 4th quarter of 2005, and some factors influenced by the housing market continue to be predominant reasons for the economic growth slowdown.

Potential Macroeconomic Influences

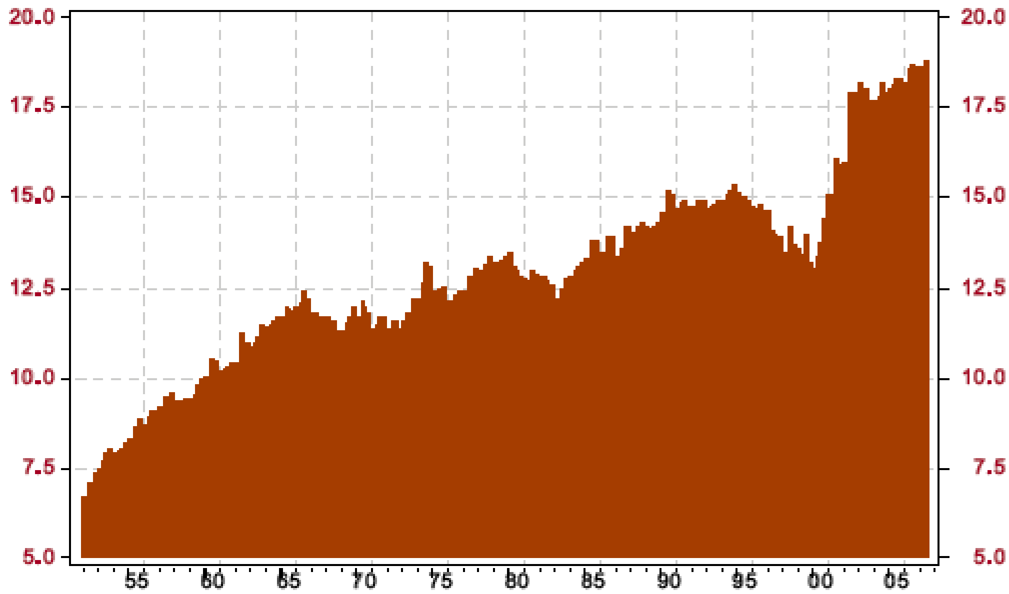
Housing Market & Credit Crisis

Retraction in the housing market and subsequent instability of major financial institutions has been the major topic of concern over the past few years. According to the United States Department of Commerce, new home sales in March sunk to their lowest level in nearly two decades and the median sales price dropped by approximately seven percent from February, the largest amount in almost four decades.[3] As mentioned last year, many

[1] "Gross Domestic Product: Fourth Quarter 2007, FINAL," Bureau of Economic Analysis, U.S. Department of Commerce, March 27, 2008.
[2] Kasriel, Paul L., "Why Did the Fed Raise Rates in October 1931?", Northern Trust, U.S. Economic & Interest Rate Outlook, March 13, 2008.
[3] "New Residential Sales in March 2008," U.S. Census Bureau News Joint Release with U.S. Department of Housing and Urban Development, April 2008.

economists believe that the residential housing sector accounted for both the substantial growth in the economy, as well as the recent economic moderation. As Exhibit 3 shows, consumer debt exposure increased to historically high levels. With credit already difficult to obtain for many consumers and businesses alike, this information suggests that substantial consumer investment is unlikely in the immediate future.

Exhibit 3: Total Household Debt as % of Total Assets – 1950 to 2007



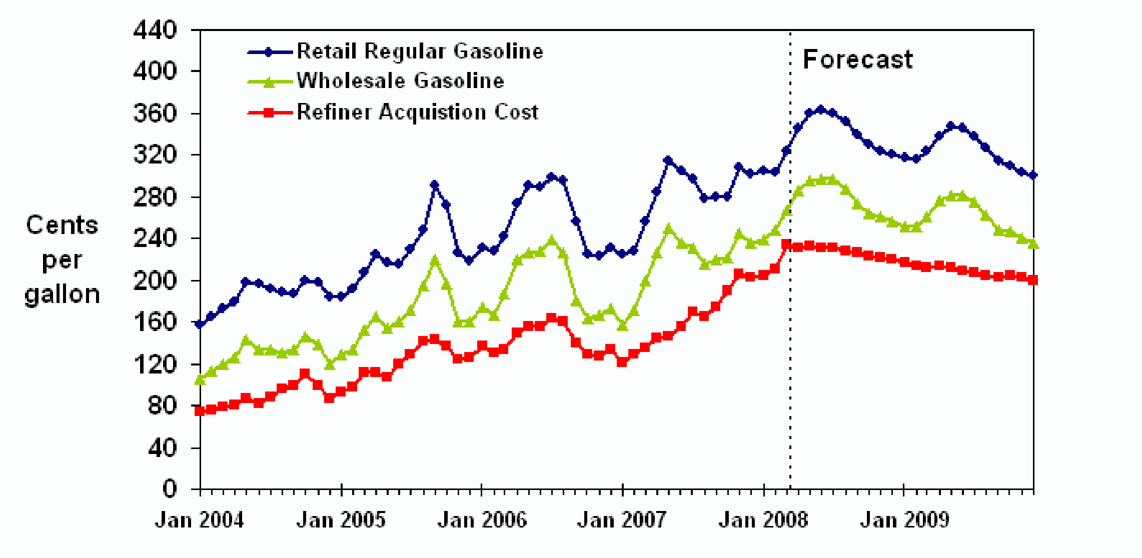
Source: Recession Now – Putting our Forecast Where Our Mouth Has Been, Northern Trust, U.S. Economic & Interest Rate Outlook, February 4, 2008.

This trend, combined with the stagnating fixed investment industry, could impact multiple areas of the Tennessee economy. Generally, as residential housing investment slows, new starts slow, along with the demand for construction inputs, making business construction investment more attractive. However, as new starts slowed the input costs did not drop. This predicament, combined with the inability to set necessary credit for investment, slowed the construction industry and other business investment further. This scenario has impacted and will continue to impact construction material sales and other fixed investment throughout 2008.

Oil Prices & Value of the Dollar

Oil price concerns continue to dominate headlines. As in prior years, global demand and other international political issues impact the surging prices. Continued Middle Eastern problems contribute to increasing oil prices. Some relative relief came during the summer driving season as oil and gas prices dipped between May and August. However, as Exhibit 4 shows, high gas price levels returned and projections for the 2008 summer driving season appear likely to remain extraordinarily high. (Relief from escalating prices may be found in 2009 based upon current EIA projections, but this report does not focus on projections beyond 2008.)

Exhibit 4: Gasoline Price Outlook for 2008



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy and Summer Fuels Outlook, April 2008

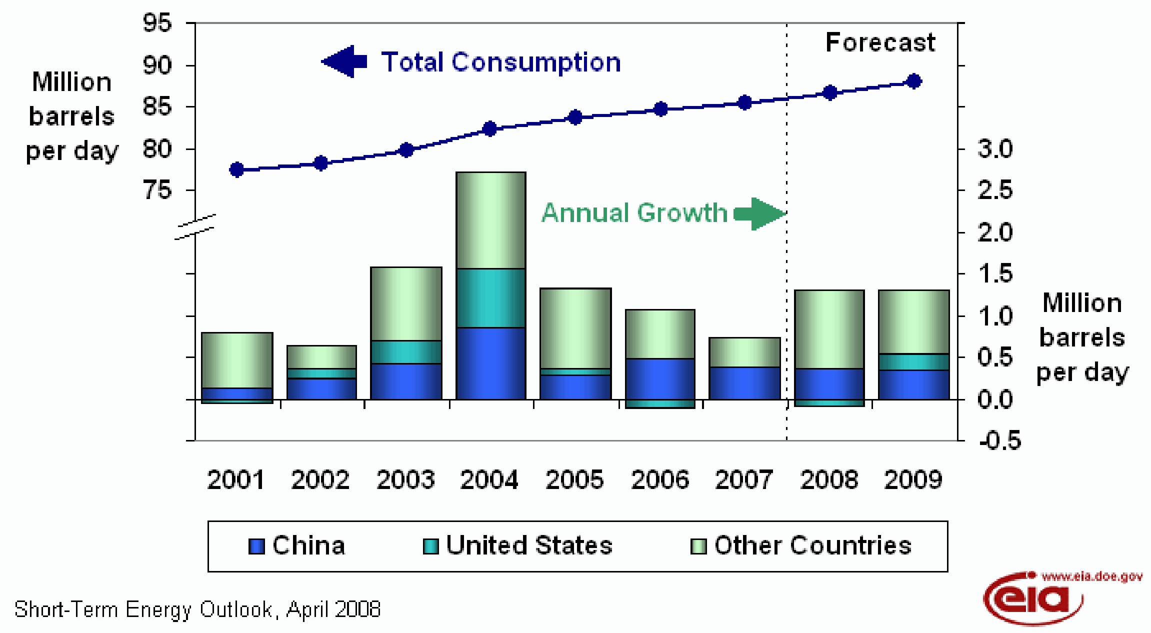
The Energy Information Administration (EIA) anticipates summer 2008 gas prices will average $3.54 in nominal prices compared to $2.93 during summer 2007.[4] While sustained high oil and gas prices should not be characterized as spikes, economies such as Tennessee's that rely on higher than average manufacturing workforces need to be concerned. Oil and gas price increases negatively impact the U.S. economy by increasing the payments to foreign countries for oil, which might lead to lower domestic production of goods and services.[5] Such a scenario could result in layoffs in goods-producing industries. Economies like Tennessee's that still maintain a higher than average manufacturing workforce would be most heavily affected.

Absent technological changes, continued demand at current levels in the United States coupled with increasing demand in booming Asian economies, such as China and India, foretell of future price increases absent technological changes. As Exhibit 5 shows, total oil consumption is projected to increase despite a reduction in demand from the U.S. in the previous year. Countries outside the United States and China continue to drive most of the world's consumption increases. In fact, the Energy Information Administration projects a third consecutive year of decreased or stagnant consumption growth in the United States.

[4] "Short-Term Energy and Summer Fuels Outlook," U.S. Department of Energy, Energy Information Administration, April 2008.

[5] Keith Sill, "The Macroeconomics of Oil Shocks," *Business Review*, Philadelphia Federal Reserve, Q1 2007, p.28.

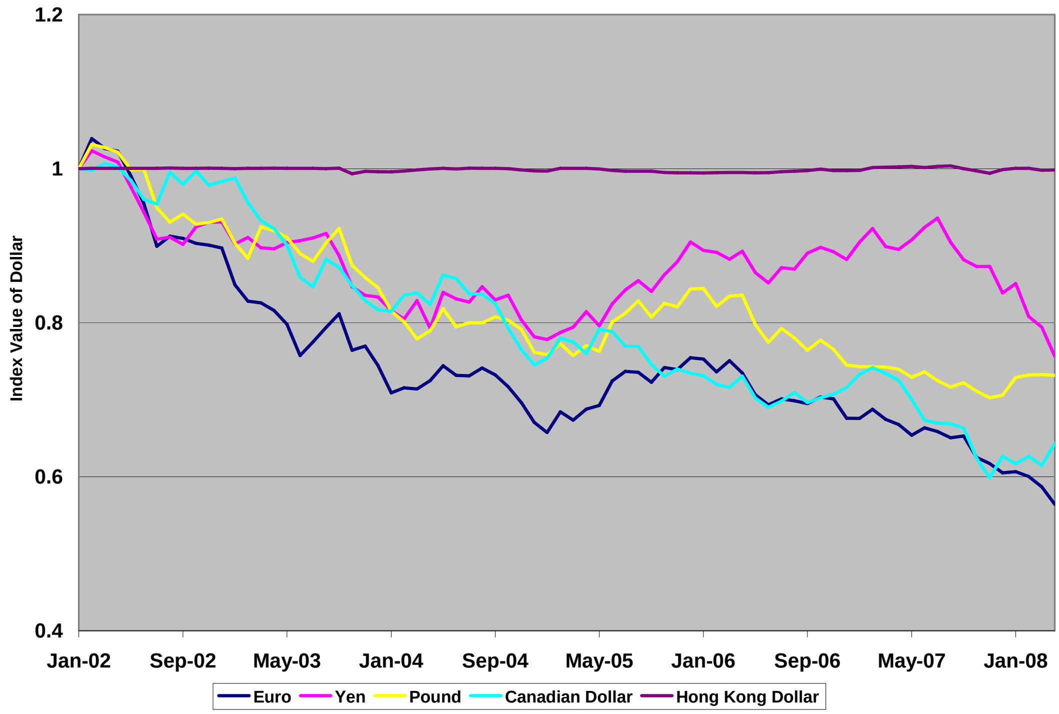
Exhibit 5: Oil Consumption Growth History and Forecast



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy and Summer Fuels Outlook, April 2008

The value of the dollar falling against other major world currencies also impacts the price of oil. As Exhibit 6 shows, the value of the dollar diminished against all major currencies aside from the Hong Kong dollar which is connected to the U.S. dollar. However, such changes make United States exports more attractive to the nation's major trading partners. To the extent that the dollar remains at such a level, United States' exports remain an attractive alternative, but the U.S. is no longer an attractive place to sell oil products. Such a scenario may encourage goods producers and manufacturers to reinvest in operations, staffing and technology, but also may not relieve the upward pressure on the price of gasoline and household heating oil.

Exhibit 6: Value of Dollar Relative to Other World Currencies, Indexed to January 2002



Source: Historical Currency Exchange Rates, FXHistory, Oanda Corporation, www.oanda.com, April 16, 2008.

The impact of oil price shocks combined with the shrinking value of the dollar around the world, as well as other inflationary pressures on staple consumer goods, should give policy makers great concern. In a government relying heavily on consumption based taxes, these factors point toward less discretionary consumption.

Business Investment and Inflation

Slowing sales and rising expenses for materials will impact businesses in the coming year. According to a survey by the National Association for Business Economics, over the past three months, decreasing corporate profit margins outnumber increases for the first time since 2003.[6] Although profit margins are falling and substantial new investment seems unlikely, most economists don't expect business investments to decrease dramatically in the coming quarter. According to the CEO Business Roundtable's first quarter survey, only nine percent of CEOs expect capital spending to decrease in the next six months. The CEO Economic Outlook Survey also found that 35

[6] Shobhana Chandra, "U.S. Companies More Pessimistic About Outlook, Survey Says," http://bloomberg.com, April 21, 2008.

percent of CEOs anticipate increasing capital spending in 2008, which is down from the 44 percent reported in 2007.[7]

Inflation remains a concern. Surging energy costs continue driving staple consumer goods prices up thus creating greater inflation risk. With price increases appearing broad-based, some economists view these increases as a message that companies can no longer absorb the rising costs of producing goods and services. Many economists attribute the price increases to the aggressive reduction in fed funds rates by the Federal Reserve, an attempt to spur growth, and the subsequent fall in the value of the dollar.[8]

CEOs predict the employment picture to remain strong with 78 percent of surveyed corporate executives anticipating employment levels to either increase or remain the same.[9] This level is identical to the previous year's survey. In spite of recent employment reports to the contrary, no agencies revised employment growth expectations thus creating the possibility that employment will increase over the remainder of the calendar year.

Tennessee's Long-Term Economic Climate

Perhaps the most alarming long-term issue facing Tennessee's economy is the potential impact of future economic slowdowns on Tennessee. As Exhibit 7 shows, Tennessee was in the lowest quintile for personal income growth last year. The other states in the lowest quintile generally appear to be traditional "rust-belt" states with heavy economic reliance on manufacturing.

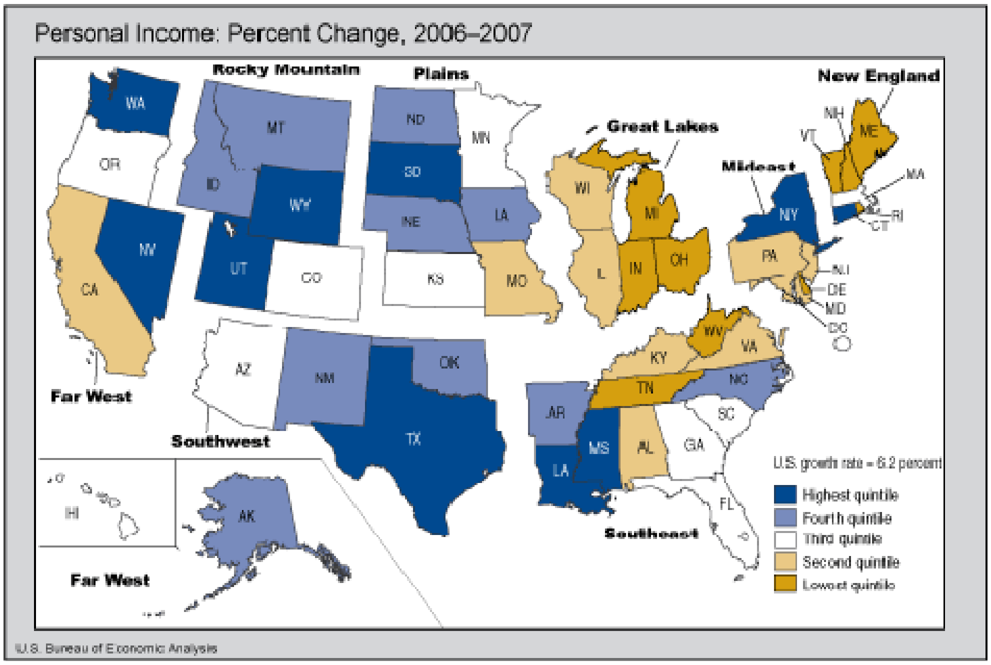
---

[7] "International Markets Provide Cushion to U.S. Economic Downturn for Many U.S. Companies." First Quarter 2008 CEO Economic Outlook Survey, www.businessroundtable.org. April 10, 2008.

[8] John W. Schoen, "Why Fed Rate Cuts May be Spurring Inflation." http://msnbc.com, February 26, 2008.

[9] "International Markets Provide Cushion to U.S. Economic Downturn for Many U.S. Companies." First Quarter 2008 CEO Economic Outlook Survey, www.businessroundtable.org. April 10, 2008.

Exhibit 7: Percent Change in Personal Income by State, 2006 – 2007



Source: State Personal Income 2007, U.S. Bureau of Economic Analysis March, 26, 2008

If economic downturns impact manufacturing based economies most significantly, then volatility in the year-to-year growth in Tennessee's economy will become more pronounced. However, policy makers should be cognizant of the pressure placed on manufacturing companies to reduce costs in a competitive global environment and the willingness of workforces in countries outside the United States to perform comparable duties for lower wages. This activity puts downward pressure on wages for manufacturing employees in the United States and could ultimately reduce the standard of living.

Summary

The economy likely will experience an additional year or two of slow economic growth before returning to more moderate trends. Most notably for Tennessee policy makers, the econometric model predicts negative growth in durable goods sales for the end of this current fiscal year and the coming fiscal year. Continued languishing of the housing sector, sustained high oil and gasoline prices, and inflation, combined with a concentration of wealth may ultimately have a negative impact on the consumer market and thus consumption-based taxes. However, based upon this review, CBER's projection of 4.56 percent nominal personal income growth for 2008 does not appear unreasonable.